

Application No.: 10/089,928

Docket No.: HO-P02428US0

In the Claims

Cancel Claims 1-52

53. (Currently Amended) An isolated nucleic acid comprising a promoter which comprises a sequence of nucleotides selected from (i) the human promoter sequence shown in Figure 1 (SEQ. ID.NO. 1) and (ii) the mouse promoter sequence shown in Figure 2 (SEQ. ID.NO. 3), free or substantially free of utrophin coding sequence.

54. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises the sequence of nucleotides shown 5' to position 1440 in Figure 1.

55. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises the sequence of nucleotides shown 5' to position 1183 of the mouse sequence shown in Figure 2.

56. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises the nucleotides numbered 1199 -1440 in the sequence shown in Figure 1.

57. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises the nucleotides numbered 959-1183 in the sequence shown in Figure 2.

58. (Currently Amended) An isolated nucleic acid consisting essentially of a promoter which comprises the nucleotide sequence
ACAGGACATCCCAGTGTGCAGTTCG (SEQ. ID.NO. 10).

59. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises a sequence of nucleotides that is an allele, mutant or derivative, by way of addition, insertion, deletion or substitution of one or more nucleotides, of the promoter sequence shown in Figure 1, which sequence has at least 60% homology with the promoter sequence shown in figure 1 and which promoter, when operably linked to a

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sequence of nucleotides, has the ability to initiate transcription of that sequence, said transcription being muscle-specific.

60. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises a sequence of nucleotides that is an allele, mutant or derivative, by way of addition, insertion, deletion or substitution of one or more nucleotides, of the promoter sequence shown in Figure 2, which sequence has at least 60% homology with the promoter sequence shown in figure 2 and which promoter, when operably linked to a sequence of nucleotides, has the ability to initiate transcription of that sequence, said transcription being muscle-specific.

61. (Previously Presented) An isolated nucleic acid consisting essentially of a promoter which comprises a sequence of nucleotides that is an allele, mutant or derivative, by way of addition, insertion, deletion or substitution of one or more nucleotides, of the promoter sequence shown in Figure 2, which hybridises to the promoter sequence shown in figure 2 under stringent hybridisation conditions and which promoter, when operably linked to a sequence of nucleotides, has the ability to initiate transcription of that sequence, said transcription being muscle-specific.

62. (Previously Presented) A nucleic acid construct comprising an isolated nucleic acid according to any of the preceding claims operably linked to a heterologous sequence.

63. (Previously Presented) A nucleic acid construct comprising an isolated nucleic acid according to any one of claims 53 to 61 operably-linked to a coding sequence.

64. (Previously Presented) A nucleic acid construct according to claim 63 wherein said coding sequence encodes a reporter molecule.

65. (Previously Presented) An in vitro host cell comprising a nucleic acid construct according to claim 63.

66. (Previously Presented) An in vitro host cell comprising a nucleic acid construct according to claim 64.

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67. (Previously Presented) A method comprising culturing a host cell according to claim 65 under conditions for expression of the peptide or polypeptide encoded by said coding sequence.

68. (Previously Presented) A method as claimed in claim 67 wherein said coding sequence encodes a reporter molecule.

69. (Previously Presented) A method according to claim 67 comprising detection of transcription of said coding sequence.

70. (Previously Presented) A method according to claim 67 comprising detection of expression of the peptide or polypeptide encoded by said coding sequence.

71. (Previously Presented) A method of screening for a substance able to modulate utrophin promoter activity, the method comprising contacting an expression system containing a nucleic acid construct according to claim 63 with a test or candidate substance and determining transcription of said coding sequence or expression of the peptide or polypeptide encoded by said coding sequence.

72. (Previously Presented) A method as claimed in claim 63 wherein said coding sequence encodes a reporter molecule and said reporter molecule is detected.

73. (Previously Presented) A method according to claim 71 wherein the expression system comprises a host cell containing said nucleic acid construct.

74. (Previously Presented) A method which comprises, following identification of a substance able to modulate utrophin promoter activity in accordance with a method according to claim 71, manufacture of the substance and/or use of the substance in manufacture or formulation of a composition.

75. (Previously Presented) The use of an isolated nucleic acid according to any of claims 53 to 58 for promoting transcription of an operably linked sequence of nucleotides.

76. (Previously Presented) The use of claim 75 wherein the transcription is tissue-specific, with the tissue-specificity being muscle-specific.

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77. (Currently Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide including the amino acid sequence shown in Figure 1 (SEQ. ID.NO. 2) or Figure 2 (SEQ. ID.NO. 4).

78. (Previously Presented) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide that is an allele, mutant or derivative of a polypeptide including the amino acid sequence shown in Figure 1, which amino acid sequence has at least 60% homology with the polypeptide sequence in Figure 1 or Figure 2.

79. (Previously Presented) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide that is an allele, mutant or derivative of a polypeptide shown in Figure 1 or Figure 2, which nucleotide sequence hybridises with the nucleotide sequence encoding the polypeptide in Figure 1 or Figure 2 under stringent hybridisation conditions.

80. (Currently Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide having the amino acid sequence shown in Figure 9 (SEQ. ID.NO. 9).

81. (Currently Amended) An isolated nucleic acid molecule comprising the nucleotide sequence shown in Figure 9 (SEQ. ID.NO. 8).

82. (Previously Presented) A nucleic acid of any one of claims 77 to 81 comprised in a vector.

83. (Previously Presented) A nucleic acid according to any one of claims 77 to 81 comprised in an expression vector.

84. (Previously Presented) An in vitro host cell containing an expression vector according to claim 83.

85. (Previously Presented) A method including introduction of nucleic acid according to any of claims 77 to 81 into a cell.

86. (Previously Presented) A method as claimed in claim 85 wherein said nucleic acid is an expression vector.

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87. (Previously Presented) A method according to claim 85 wherein said introduction takes place in vitro.

88. (Previously Presented) A method as claimed in claim 85 which includes causing or allowing expression of said polypeptide encoding nucleotide sequence in a cell.

89. (Previously Presented) A method according to claim 88 wherein the cell is part of a mammal.

90. (Previously Presented) A method according to claim 88 wherein the expression product is purified and/or isolated following expression.

91. (Previously Presented) A method according to claim 90 wherein the expression product is formulated into a composition which includes at least one additional component, following purification and/or isolation of the expression product.

92. (Previously Presented) An isolated polypeptide as encoded by nucleic acid according to any of claims 77 to 81.

93. (Previously Presented) An isolated utrophin exon IB polypeptide selected from:

(i) human utrophin exon IB polypeptide of which the amino acid sequence is shown in Figure 1; and

(ii) mouse utrophin exon IB of which the amino acid sequence is shown in Figure 1.

94. (Previously Presented) An isolated polypeptide including the human polypeptide according to claim 93.

95. (Previously Presented) An isolated polypeptide including the mouse polypeptide according to claim 93.

96. (Previously Presented) An isolated polypeptide which has 60 % homology with the polypeptide according to claim 94 or 95.

97. (Previously Presented) An isolated fragment of a polypeptide according to claim 93, which fragment is 5 to 25 amino acids in length.

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98. (Previously Presented) An isolated fragment of a polypeptide according to claim 93, which fragment is 10 to 20 amino acids in length.

99. (Previously Presented) An antibody specific for a polypeptide according to any one of claims 92 to 96.

100. (Previously Presented) A composition including a polypeptide according to claim 92 and a pharmaceutically acceptable excipient.

101. (Previously Presented) A composition including a polypeptide according to any one of claims 92 to 98 and a pharmaceutically acceptable excipient.

102. (Previously Presented) A composition including a polypeptide according to claim 94 and a pharmaceutically acceptable excipient.

103. (Previously Presented) A composition including a fragment according to claim 97 or claim 98 and a pharmaceutically acceptable excipients.

104. (Previously Presented) A composition including an antibody according to claim 99 and a pharmaceutically acceptable excipients.

105. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering a nucleic acid according to any one of claims 77 to 81 in a therapeutically effective amount.

106. (Previously Presented) A method as claimed in claim 105 wherein said nucleic acid is an expression vector.

107. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering a polypeptide according to claim 92 in a therapeutically effective amount.

108. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering a polypeptide according to any one of claims 93 to 95 in a therapeutically effective amount.

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109. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering a polypeptide according to claim 96 in a therapeutically effective amount.

110. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering a fragment according to claim 97 or claim 98 in a therapeutically effective amount.

111. (Previously Presented) A method for treating a dystrophin phenotype in a mammal, which comprises administering an antibody according to claim 99 in a therapeutically effective amount.